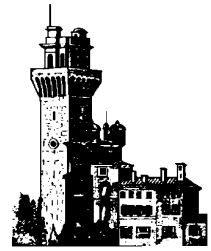




INAF



ISTITUTO NAZIONALE DI ASTROFISICA
OSSERVATORIO ASTRONOMIC DI PADOVA



Concorso pubblico, per titoli ed esami, ai fini del reclutamento di numero diciotto "Ricercatori", Terzo Livello Professionale, con contratto di lavoro a tempo indeterminato e regime di impegno a tempo pieno, indetto con Determina Direttoriale n. 57/2022 del 15/06/2022 ed il cui avviso è stato pubblicato sulla Gazzetta Ufficiale, IV Serie Speciale "Concorsi ed esami" n. 48 del 17 giugno 2022.

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PUBBLICAZIONE QUESITI PROVA ORALE DEL 23 – 24 GENNAIO 2023

A ciascun candidato sono state poste le seguenti domande:

- Descriva i suoi principali interessi scientifici e la sua attività di ricerca, mettendo in luce i principali highlights.
- Approfondimento della prova scritta.
- Una domanda estratta a sorte tra le seguenti (a cui è stato chiesto a ciascun candidato di rispondere in lingua inglese):
 - 1) Discuss a physical phenomenon in galaxies that could be studied with JWST.
 - 2) Discuss a physical phenomenon in galaxies that could be studied with ALMA.
 - 3) Discuss a physical phenomenon in galaxies that could be studied with MUSE.
 - 4) Discuss a physical phenomenon in galaxies that could be studied with MeerKAT.
 - 5) Discuss a physical phenomenon in galaxies that could be studied with MAVIS.
 - 6) Discuss a physical phenomenon in galaxies that could be studied with SKA.
 - 7) Discuss a physical phenomenon in galaxies that could be studied with ERIS.
 - 8) Discuss a physical phenomenon in galaxies that could be studied with MICADO/MORFEO (ex MAORY).

- 9) What are the gas components in galaxies, and what are the best methods and instruments to measure their properties?
 - 10) What would be a good observational approach to measure feedback in galaxies?
 - 11) What would be a good observational approach to investigate the effects of galaxy environment on gas and stars in galaxies?
 - 12) What is one way that the gaseous component of galaxies interacts with the stars?
 - 13) What are the advantages of a multi-wavelength approach to study the stellar and gaseous components of galaxies?
 - 14) What could be considered as an observational manifestation of feedback in galaxies?
 - 15) What physical processes could accelerate evolution in dense galaxy environments?
 - 16) Which physical processes can drive morphological evolution in galaxies?
 - 17) Which physical processes can cause quenching of star formation in galaxies?
 - 18) Discuss at least one of the most important forthcoming galaxy surveys that will allow us to investigate the effects of feedback and galaxy environment on galaxy evolution.
 - 19) Describe at least one environmental process that can affect the evolution of the gaseous and/or stellar components of galaxies.
 - 20) How do the gaseous and stellar components of galaxies change with the galaxy environment?
 - 21) How can galaxy environment be measured?
- Descriva cosa farebbe in futuro (ad esempio, come pianifica di usare la strumentazione attuale e futura), spiegando la scelta di INAF ed in particolare la sede di Padova.

La Segretaria di Commissione / RUP

Federica De Guio

